WORLD NUCLEAR ASSOCIATION

European Commission
Directorate-General for Competition
State Aid Greffe
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E-mail: stateaidgreffe@ec.europa.eu

London, 12 February 2016

Dear Sirs,

State aid SA 38454 (2015/C) – Hungary: Possible aid to the Paks Nuclear Power Station

The World Nuclear Association is responding to the consultation exercise initiated by the European Commission in connection with its competition investigation into the construction of the Paks II nuclear power plant.

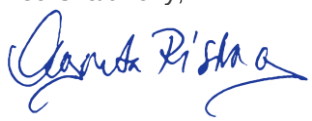
We would like to take this opportunity to remind the Commission of both the benefits of nuclear technology in general and in the case of Hungary, which as a Member State has the right to determine its energy choices and the general structure of its energy supply (under the TFEU). It is our considered view that the Euratom Treaty establishes a clear legal basis for the development of nuclear energy as a common objective of the European Union and for the facilitation of investment into nuclear reactors.

Nuclear energy provides reliability, cost stability, security of supply and numerous environmental and social benefits (some of which are set out in the attached additional comments). Its contribution to the energy system therefore helps attain other common policy objectives and address energy market failures in terms of security and availability, environment and health – especially in mitigating climate change. Soundly-based and appropriate regulation at both the national and EU level already address the potential externalities the technology gives rise to. Simply put, nuclear energy provides many of the same benefits as renewable energy forms with the added benefit of being a reliable and dispatchable electricity provider.

The World Nuclear Association urges the European Commission to weight the environmental and efficiency benefits offered by nuclear energy to the Union in reaching a decision on this case.

We expand on these points in the short paper attached.

Yours faithfully,



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Who we are

The World Nuclear Association is the international organization supporting the people, technology and enterprises that comprise the global nuclear energy industry. Its members include the full range of enterprises involved in producing nuclear energy – from uranium miners to equipment suppliers and generators of electricity. With a secretariat headquartered in London, the Association serves as a global forum for industry experts and an authoritative information resource on nuclear energy. It works to build worldwide understanding of the economic and environmental merits of nuclear energy and to coordinate industry cooperation to strengthen human, organizational and technical capabilities. The Association strongly supports the peaceful use of nuclear energy which contributes to a low-carbon society, affordability and security of energy supplies; which is also a central objective of the Euratom Treaty. Among our 168 member, 50 are companies based in the European Union; while other members are investing in the European energy sector or have firm intentions to do so.

This document has been prepared in consultation with World Nuclear Association member companies but does not necessarily represent the policies of any or all of its individual member organizations.

We submitted comments in April 2014 in connection with the investigation into the State aid proposed by the UK Government to support the Hinkley Point C project and so refer you to those remarks we made nearly two years ago.

Comments on the EC investigation into possible aid to the Paks Nuclear Power Station, Hungary

Legal base for nuclear energy development

A clear legal basis exists for the role of nuclear power in achieving the common objectives of the European Union. The Treaties privilege nuclear energy and renewable energy sources as technologies to be promoted as common objectives of the European Union. In particular, Article 1 of the Euratom Treaty states that "it shall be the task of the Community to contribute to the raising of the standard of living in the Member States … by creating the conditions necessary for the speedy establishment and growth of nuclear industries." It is well-understood that Member States have the authority to decide what energy mix is appropriate to their circumstances.

Ensuring security of supply

Nuclear energy contributes significantly to energy security since it is a resource with low vulnerability to external trade disruption. Nuclear fuel represents a minor part of plant operating costs and re-fuelling a nuclear reactor is normally undertaken on a cycle of a year or more, keeping downtime to a minimum. To buttress import security, the EU can draw upon the Euratom Supply Agency, set up to ensure a regular and equitable supply of nuclear fuel to EU users. The World Nuclear Association has surveyed global experience and concluded that "the current world [uranium] market provides a considerable degree of security of supply, and has never to date failed to ensure continued operation of nuclear energy generation worldwide."[1]

[1] World Nuclear Association, 2011, *Ensuring Security of Supply in the International Nuclear Fuel Cycle*, London, p. 5.

Protecting health and the environment

Nuclear energy helps to protect human health and the natural environment. The health impact from different energy systems has been studies by Dr Stefan Hirschberg of the Paul Scherrer Institute, Switzerland. This work indicates that nuclear, solar and wind present the lowest health damage in terms of years of life lost.[2] Nuclear energy is one of the safest and most environmentally friendly forms of electricity generation.

The World Nuclear Association has compared the research on greenhouse gas emissions of different electricity generation technologies.[3] The study shows that greenhouse gas emissions of nuclear power plants are among the lowest of any electricity generation method and on a lifecycle basis are comparable to wind energy. The Inter-governmental Panel on Climate Change (IPCC) review of lifecycle assessments of greenhouse gas emissions from electricity generation reached similar conclusions.[4]

Authoritative studies, such as those by the International Energy Agency in its *World Energy Outlook*, recognize the benefits that nuclear power could bring to an energy strategy that stands a fair chance of restraining greenhouse gas emissions to achieve no more than a 2^{o}C rise in global warming.[5]

Market failures

It is commonly accepted that deregulated markets fail to meet environmental objectives or ensure adequate security of supply and therefore require additional policies and state intervention to achieve this. This is part of the fundamental justification for renewable energy targets and support schemes within EU Member States. In the case of nuclear power, the capital-intensive character of reactor construction, along with the lengthy period for licensing and permitting that is required prior to construction and operation, means that it has proven difficult to finance nuclear projects in some energy markets despite their considerable social and environmental benefits. Like all major infrastructure projects offering public benefits, successfully delivering nuclear projects requires government involvement across the project life.

12/02/2016

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[2] PSI, *Energie-Spiegel*, 20, June 2010 at <http://www.psi.ch/info/MediaBoard/Energiespiegel_20e.pdf> retrieved on 4/03/2014.
[3] World Nuclear Association, 2011, *Comparison of Lifecycle Greenhouse Gas Emissions of Various Electricity Generation Sources*, London.
[4] IPPC, 2011, *Special Report on Renewable Energy Sources and Climate Change Mitigation*, Cambridge: Cambridge University Press, Summary for Policymakers, Figure 8, p. 19.
[5] International Energy Agency, *World Energy Outlook 2015*, Paris, in the 450 Scenario to 2040; see also IEA, *Energy Technology Perspectives 2015 – Mobilising innovation to Accelerate Climate Action*, Paris: pp. 38-40, which presents scenarios to 2050.